The Pace of Technology Transfer in Anticipation of Joint Venture Breakup

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The paper

- The story
  - Relationship between a technologically advanced firm and a local firm
  - Takes place in LDCs
- The question: (Should) The multinational firm transfer his knowledge (and) at what rate?
- The main result:
  - Depending of the cost of transfer, we should observe a slower pace of technology transfer, with a complete transfer (and breach of contract) at time $t^* < T$ and with an increasing part of the rent going to the local firm

The paper

- The (heroïc) assumptions
  - A1. No institutions / property rights failures (*i.e.* no contract)
  - A2. No financial market (*i.e.* no possible up-front lump-sum payment – like we observe in TLAs)
  - A3. Technology with a limited life duration T (*i.e.* obsolescence of the technology) // T is known by the parties
  - A4. If the contract is breached, the multinational firm cannot any more stay in the country (*i.e.* outside option = 0)
- Does the result comes at a surprise?

Make Links with previous literature. Not only specialized literature

- What is new? This problem is a common one.
- underinvestment issue under incomplete contracting and hold-up
- Labor economics?
  - Incomplete contracting & underinvestment (Williamson 1976; Grout 1984)
  - Usually, termination at will in such relationships
    - Should a employer transfer knowledge, “savoir faire”, non specific human assets to his employee?
    - Should an employee transfer his knowledge, “savoir faire”, non specific human assets to his employee?
  - Result in underinvestment
    - By the way you have no stylized facts or data on this issue – the only one concerns the fact that workers are leaving their companies in LDCs (Daewoo)

Make Links with previous literature. Not only specialized literature

- What is new? This problem is a common one.
- Ratchet effect and asymmetric information models
  - Reluctance to transmit information that can be used against you once transmitted

Additional assumptions needed! What about the value of future relationships with multinational firms?

- What will arrive after $t = T$?
  - Small local firm have to find a new foreign partner
  - Their past behavior might impact on their future ability to be selected again by the same multinational firm or another one
    - Implicit contract/ Reputation effect / discount rate of local firm / repeated games
- A5. The local firm doesn't care about its future after T (no reputation effect)

Additional assumptions needed! Technological solution available?

- The result is driven by another implicit assumption
  - The local firm's reservation value is changing over time with the knowledge she is acquiring – the more she absorbs knowledge, the more she can create value by itself outside of the relationship – outside option increases
  - Then we should observe a bias in favor of transferring (not only old but also) technologies that necessitate <u>complementary</u> knowledge between the multinational firm and the local firm in order to equilibrate the lock-in during the whole life of the contract
- A6. Multinational firm cannot choose between different technologies changing the nature of the transferred knowledge

Testable propositions?

- With so many assumptions, does it correspond to something existing on earth?
    - White unicorn?